IVD

IRON STAIN KIT
(SS009-20)

INTENDED USE

BioMarq Iron Stain Kit is used for *in vitro* diagnostic use. Iron Stain is intended for the detection of ferric iron in tissues, blood smears, or bone marrow smears. Small amounts of Ferric iron are normally found in bone marrow and the spleen. Abnormally large deposits may be seen in hemochromatosis and hemosiderosis. The results using this product should be interpreted by a qualified pathologist in conjunction with the patient's relevant clinical history, other diagnostic tests and proper controls.

PRODUCT DESCRIPTION

This product is based on the Prussian Blue reaction in which ionic iron reacts with acid ferrocyanide producing a blue color. In this method acidified Potassium Ferro cyanide reacts with the loosely bound ferric ion in the protein complexes of tissues and gives blue color whereas strongly bound other forms of iron does not react.

KIT CONTENTS

Potassium Ferrocyanide (SS029-5D)	1X5ml
HCl Solution (SS030-5D)	1X5ml
Nuclear Fast Red (SS010-8D)	1X8ml

MATERIALS REQUIRED BUT NOT PROVIDED

Microscope slides
Xylene/ Xylene substitute
Reagent alcohol/Ethanol
Deionized or distilled water
SS Wash Solution (Catalog No WB005-DC)
Positive Control Slides
Mounting Solutions

STORAGE AND STABILITY

Store at 2-8°C. Do not freeze. Not to be used beyond the expiration date prescribed on label.

SPECIMEN PREPARATION

Fixation: 10% NBF

Paraffin Sections: Cut sections at 4-5 microns.

PREPARATION OF WORKING SOLUTION

Iron Stain Working Solution: Mix Hydrochloric Acid Solution to Potassium Ferro cyanide Solution in 1:1 ratio in an empty vial just before use, mix well. Working solutions are stable for 3 days if stored at 2-8°C. Bring to room temperature before use.

RECOMMENDED PROTOCOL

Deparaffinize with xylene/ xylene substitute and rehydrate through graded alcohols to deionized water. Wash the slide with SS Wash Solution for 3 times.

Stain the slides with 300ul of freshly prepared Iron Stain Working Solution for 20min. Wash the slides with SS Wash Solution for 3 times.

Counter stain the slides with300ul of nuclear fast red solution for 3-5 min. Wash the slides with SS Wash Solution for 3 times.

Dehydrate, clear in xylene or its substitute & mount the slides with BioMarq XY-Mount (Catalog No MS002) or using BioMarq T-Mount (Catalog No MS003).

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Tel: 040-29702960 | www.biomarq.net

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TECHNICAL NOTE

Bring all reagents to RT before use

Gently invert all reagents prior to use

Thickness of section may affect the intensity of staining

Users can also procure the Positive Control Slides available from BioMarq for their Quality Control purpose

Follow the protocol recommendations provided in the data sheet. If atypical results occur, contact BioMarq Technical Support at 040-29702960.

QUALITY CONTROL

LIVER AND SPLEEN

STAINING INTERPRETATION

Iron pigments – Bright Blue
Nuclei - Red and
Cytoplasm - light Pink.

For image please visit our web site ***www.biomarq.net***

PRECAUTIONS

Specimens should be handled carefully before and after the assay to avoid transmission of infection and disposed of with proper precautions

When working with Special Stain chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles

For detailed safety information related to BioMarq Products, please refer to appropriate safety data sheets (SDS) available online at www.biomarq.net

REFERENCES

1. Officer B. HIML251 Lecture notes: Histochemical Stains: Perl's Prussian Blue & Periodic Acid Schiff, 2009 January 14.

2. Hani Jouihan et al, Iron - Prussian Blue Reaction - Mallory's Method, Bio-protocol, 2012 July 05.

3. Zhen Yang et al, Application of Prussian blue staining in the diagnosis of ocular siderosis, Int J Ophthalmol. 2014 Oct.

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